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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,445	06/10/2005	Minoru Shibazaki	JP02 0022 US	3909

24738 7590 01/23/2007
PHILIPS ELECTRONICS NORTH AMERICA CORPORATION
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EXAMINER

NGUYEN, LAUREN

ART UNIT	PAPER NUMBER
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2112

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/538,445

Applicant(s)

SHIBAZAKI, MINORU

Examiner

Lauren Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :06/10/2005, 11/15/2006, and 12/28/2006.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 06/10/2005 and 11/15/2006 was filed on and after the mailing date of the instant application on 06/10/2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

3. The information disclosure statement filed on 12/28/2006 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because *the non patent literature documents had not been provided*. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the phrase '*a plurality of pairs of polarizers*' used in **claim 3** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities: the phrases '*circularly polarized means*' and '*a plurality of pairs of polarizers*' used in **claim 1** and **claim 3**, *respectively*, are not supported by the specification. Appropriate correction is required.

Claim Objections

6. **Claims 1, 3, and 6-7** are objected to because of the following informalities:
- The phrase '*circularly polarized means*' used in **claim 1** is not supported by the specification or the drawings. As best understood, '*circularly polarized means*' should be --*circularly polarizer*--.

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- The phrase '*a plurality of pairs of polarizers*' used in **claim 3**, is not supported by the specification or the drawings. The specification and the drawings both show only one pair of polarizers. As best understood, '*a plurality of pairs of polarizers*' should be --*a pair of polarizers*--.
- The phrase '*at least one of said a pair of polarizer*' used in **claim 6**, as being dependent on claim 1 is best understood as --*said a pair of polarizer*--.
- The phrase '*wide viewing angle polarizer*' used in **claim 7** is unclear. The purpose of putting polarizers into LCD devices is to widen the viewing angle.
Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1-4 and 6-8** are rejected under 35 U.S.C. 102(b) as being anticipated by **Lyu et al.** (U.S. Patent Publication Number 2002/0021400).

9. With respect to **claim 1**, as shown in figures 1A-1B and 20, **Lyu et al.** discloses a liquid crystal display device comprising: a liquid crystal cell (50) having at least transmissive mode (see at least paragraph 0049, lines 3-5); and a pair of circularly polarized light means (11, 40, 30, and 10, 41, 31) having optical axes which are at substantially right angle to each other, and sandwiching said liquid crystal cell (figure 20).

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10. With respect to **claim 2**, as shown in figures 1A-1B and 20, **Lyu et al.** discloses said a pair of circular polarized light means (11, 40, 30, and 10, 41, 31) comprises a pair of polarizers (11 and 10), and a pair of retardation plates (40 and 41), which are at substantially right angle to each other (figure 20, see at least paragraph 0090, lines 7-9), arranged inside said a pair of polarizers.

11. With respect to **claim 3**, as shown in figures 1A-1B and 20, **Lyu et al.** discloses said a pair of circular polarized light means has a pair of polarizers (11 and 10, figure 20).

12. With respect to **claim 4**, as shown in figures 1A-1B and 20, **Lyu et al.** discloses said a pair of retardation plates (40 and 41) are uniaxial retardation plate (see at least paragraph 0090).

13. With respect to **claim 6**, as shown in figures 1A-1B and 20, **Lyu et al.** discloses at least one of said a pair of polarizers is a wide viewing angle polarizer (see at least paragraph 0014, lines 1-2).

14. With respect to **claim 7**, as shown in figures 1A-1B and 20, **Lyu et al.** inherently discloses an optical axis of said retardation plate is a slow axis (every retardation plate has a slow axis).

15. With respect to **claim 8**, as shown in figures 1A-1B and 20, **Lyu et al.** discloses said liquid crystal display device is a transmissive liquid crystal display device (see at least paragraph 0049, lines 3-5).

16. **Claims 1-4 and 7-8** are rejected under 35 U.S.C. 102(b) as being anticipated by **Kubo et al.** (U.S. Patent Publication Number 2001/0055082).

17. With respect to **claim 1**, as shown in figures 17 and 18A-18D, **Kubo et al.** discloses a liquid crystal display device comprising: a liquid crystal cell (figure 17) having at least

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transmissive mode (8, figure 17); and a pair of circularly polarized light means (6, 11, 7 and 9, 12, 10, figures 18C and 18D) having optical axes which are at substantially right angle to each other (see at least paragraphs 0348 - 0340), and sandwiching said liquid crystal cell.

18. With respect to **claim 2**, as shown in figures 17 and 18A-18D, **Kubo et al.** discloses said a pair of circular polarized light means (6, 11, 7 and 9, 12, 10, figures 18C and 18D) comprises a pair of polarizers (6 and 9, figures 18C and 18D), and a pair of retardation plates (11 and 12, or 7 and 10, figures 18C and 18D), which are at substantially right angle to each other, arranged inside said a pair of polarizers (see at least paragraphs 0348 and 0349).

19. With respect to **claim 3**, as shown in figures 17 and 18A-18D, **Kubo et al.** discloses said a pair of circular polarized light means has a pair of polarizers (6 and 9, figures 18C and 18D).

20. With respect to **claim 4**, **Kubo et al.** inherently discloses said a pair of retardation plates are uniaxial retardation plate or biaxial retardation plate (implicit feature of the $\lambda/4$ wave plate).

21. With respect to **claim 7**, as shown in figures 17 and 18A-18D, **Kubo et al.** discloses an optical axis of said retardation plate is a slow axis (see at least paragraphs 0348 and 0349).

22. With respect to **claim 8**, as shown in figures 17 and 18A-18D, **Kubo et al.** discloses said liquid crystal display device is a transfective liquid crystal display device or a transmissive liquid crystal display device (figures 17 and 18A-18D).

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. **Claims 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Lyu et al. (U.S. Patent Publication Number 2002/0021400)** in view of **Yano et al. (U.S. Patent Publication Number 2002/0034596)**.

25. With respect to **claim 5**, **Lyu et al.** discloses the limitations as shown in the rejection of **claim 4** above. **Lyu et al.** does not disclose said biaxial retardation plate has Nz values in the range of 0 to 1.

However, **Yano et al. ('596)**, in at least paragraph 0016, lines 1-4, figure 1, discloses said biaxial retardation plate has Nz values in the range of 0.6 - 0.9.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of **Lyu et al.** with the teaching of **Yano et al. ('596)** because such modification would provide liquid crystal display devices with good display quality and excellent contrast at wide-ranging viewing angles.

26. **Claims 5 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kubo et al. (U.S. Patent Publication Number 2001/0055082)** in view of **Yano et al. (U.S. Patent Publication Number 2002/0145904)**.

27. With respect to **claim 5**, **Kubo et al.** discloses the limitations as shown in the rejection of **claim 4** above. **Kubo et al.** does not disclose said biaxial retardation plate has Nz values in the range of 0 to 1.

However, **Yano et al. ('904)**, in at least paragraph 0017, lines 3-6, figure 2, discloses said biaxial retardation plate has Nz values in the range of 0.4 to 0.6.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of **Kubo et al.** with the teaching of **Yano et al. ('904)** because such modification would provide liquid crystal display devices exhibiting good display quality at a wide viewing angle in all azimuths (see at least paragraph 0028, lines 11-18).

28. With respect to **claim 6**, **Kubo et al.** discloses the limitations as shown in the rejection of **claim 1** above. **Kubo et al.** does not disclose at least one of said a pair of polarizers is a wide viewing angle polarizer.

However, **Yano et al. ('904)**, in at least at least paragraph 0028, lines 11-18, figure 2, discloses at least one of said a pair of polarizers is a wide viewing angle polarizer.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of **Kubo et al.** with the teaching of **Yano et al. ('904)** because such modification would improve the display quality of liquid crystal display devices.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Georges et al. (U.S. Patent Number 6,587,171) discloses a method to widen the field of observation of a liquid-crystal panel. Miyachi et al. (U.S. Patent Publication Number 2001/0048497) discloses an LCD device having a broad angle of visibility. Ito et al. (U.S. Patent Number 7,084,944) discloses optical compensatory sheet, polarizing plate and LCD device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Nguyen whose telephone number is (571) 270-1428. The examiner can normally be reached on M-F, 7:30-5:00 EST.

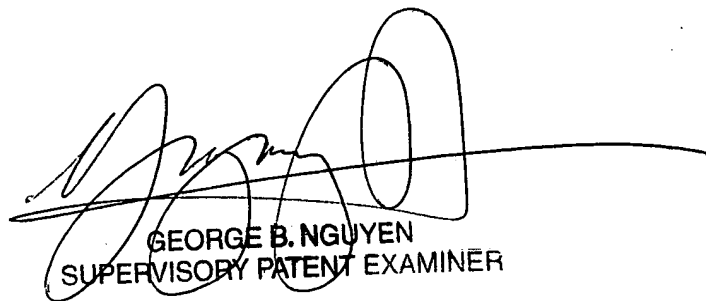
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on (571) 272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lauren Nguyen

01/11/2006



GEORGE B. NGUYEN
SUPERVISORY PATENT EXAMINER